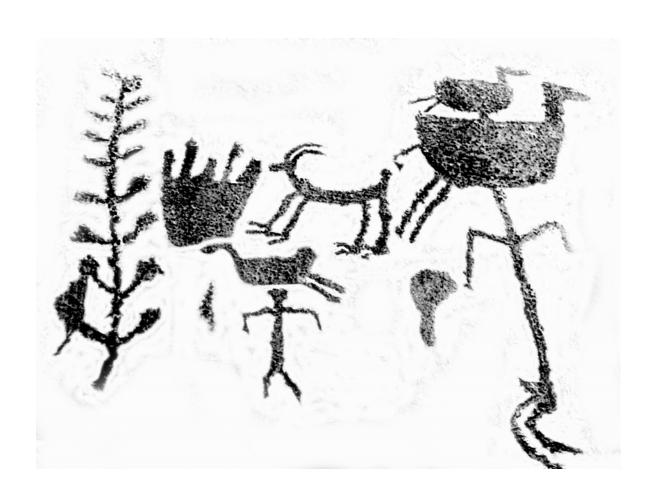
AMERICAN ROCK ART RESEARCH ASSOCIATION

A BASIC GUIDE FOR ROCK ART RECORDING



A BASIC GUIDE FOR ROCK ART RECORDING

PURPOSE

Many of us are intrigued by prehistoric markings, and even some historic inscriptions, on stone for a variety of reasons. Most of us take personal photographs of rock art for our own gratification, but there remains a serious need for creating a more enduring and accessible record. Rock art, even without the inadvertent impact and deliberate vandalism and destruction by humans, deteriorates naturally over the decades and centuries. Erosional factors on rock surfaces, such as freezing and thawing, chemical weathering, humidity, biological agents like lichen, running water, wind abrasion, and others, take a cumulative toll on pictographs and petroglyphs. Therefore, there is an imperative need to record rock art while it is still somewhat intact. This booklet provides some basic guidelines for undertaking site documentation. Eventually the only visual and narrative record of many of these prehistoric images will be what we are able to generate by drawings, photographs, and notes.

The American Rock Art Research Association is often approached by individuals interested in recording rock art who have never done so and have no idea where to start. The purpose of this brief overview is to provide basic steps on how to record a rock art site for the newcomer and not to dispense in-depth information. It will offer some suggestions for determining site location, mapping the site, recording the rock art and its attributes, determining site condition, and making recommendations for further work. A caveat must be added to this introduction: what is offered here are minimal standards, and the discussion is general. Each rock art site offers its own peculiar circumstances, and the process of recording has to be adjusted to a whole list of variables. Some data are based on subjective observations made in the field, and recording is frequently done under less than ideal conditions due to weather or poor lighting conditions. There is a range of variation in individual methodologies on the mechanics of recording, none more correct than another as long as objectives are reached. Therefore, there is not a single approach that has universal application, but there are basic expectations that need to be addressed.

GETTING STARTED: THE NECESSARY PRELIMINARIES

Rock art is discovered by serendipity, deliberate and methodical searching, or informant accounts. After finding the rock art, the initial action is to determine the ownership of the property. Topographic and land-use maps are helpful in answering this. The next step is to determine if the site is known, and if so, is it already documented. There is no sense putting a lot of effort into recording a site that already has complete documentation. However, if the site is known and has an official numerical designation (a Smithsonian trinomial, a state museum, or an agency number) that is no guarantee that the rock art has been recorded at all, or at least to acceptable standards. Many of the older site reports are a single page, have no site map, and if sketches of the rock art exist, they may be only a few motifs at best. To find out the status of a site, contact the responsible government agency cultural resource official, the state archaeologist, or the state office of historic preservation. Most states have a central authority, which acts as the

repository for site records and issues site numbers. Most of the federal agencies maintain their own site inventories and records. If the land is private property, it is absolutely essential that you secure permission from the landowner and abide by all his or her requests (like closing gates and picking up your trash). If the site is on public land, you must contact the appropriate land manager (National Parks, Forest Service, Bureau of Land Management, Bureau of Reclamation, State Parks, or other agencies) and the individual responsible for cultural resources. They will require some kind of permitting process, which can be as simple as a volunteer agreement or as complicated as presenting a detailed research design and obtaining a research permit. Once you secure that permit or permission, always contact the owner/manager prior to going to the field and give them the dates you will be working and who will be with you. It is also good practice to send them a brief trip report after you have completed each session describing what you accomplished. Keep everyone in the loop with good communication. It is also a desirable practice to involve Native American consultation with the appropriate tribal entity. This can be a complicated process, especially in an area of overlapping affiliations. Most federal agencies have a liaison who has developed a rapport with the Native American communities and will usually take care of the consultation for you.

When undertaking a recording project, it is absolutely imperative that you deliver a product. If you gain permission from an agency or a landowner to document a site, then accomplish that task and give them a report. An ongoing complaint from land managers is that people make promises and do not deliver. Your failure to complete projects makes it very difficult for subsequent researchers to gain access to sites and receive permits to record. To that end, a strong word of caution: do not start out trying to record too large or too complicated a site. It is very common for the beginner, fired by enthusiasm, to start recording not realizing how tedious the process is and the amount of time required. It is better to do a series of smaller sites initially until you gain confidence and a degree of expertise. If you are working with one entity, you will also gain the manager's trust and begin to build a reputation for dependability.

As you choose a site to record, you need to ascertain your purpose and objectives because that will determine the procedures you will employ. Your goal may be directed by the desire to document an unrecorded site, gather salvage data on a threatened or badly impacted site, or by the objectives of a specific research plan. There are different levels of recording ranging from obtaining location data and providing enough description to obtain a site number, to complete and total documentation of the entire site. While filing a primary report will make land managers aware of the location of a rock art site, it provides limited research value. Complete documentation obviously provides a more complete record of a site, can address potential research question, and is an intrinsic part of archaeological site protection and preservation policy. However, the typical considerations of how much time you have, how many people are going to help you, plus the usual uncertainties of the weather all have a bearing on the degree of thoroughness involved in your fieldwork. If you are working in an area in which there are a number of sites to record, try to develop, in conjunction with the land manager, a prioritized list of sites needing attention. The sites most likely to suffer from erosion or vandalism should be high on your list and remote backcountry sites should rate a lower concern. However, sudden flooding, wildfire, deliberate destruction, or theft, do not work on a time schedule.

The last preliminary step before starting fieldwork is to acquire the equipment you will need (discussed below) and the appropriate United States Geological Survey maps. The standard map used in most archaeological projects is a 7.5' series topographic map. The USGS publishes an index to topographic maps by state. By consulting the index, you can determine in advance what topo sheet you will need. Many local backpacking/outdoor supplies stores sell local topos. You can also order by mail from U.S.G.S. Map Sales, Box 25286 Federal Center, Bldg. 810, Denver, Colorado, 80225 or online from topomaps.usgs.gov/.

BASIC EQUIPMENT

The distance you are working from your vehicle often dictates what equipment you are going to carry into the field. A short walk versus a multiple day backpack to reach your objective is usually the deciding factor between what is absolutely essential as opposed to what might be useful to have. Realize that archaeology is a science, and this fact will require you to use the metric system - inches and feet are out and centimeters and meters are in. This will influence selection of your equipment when it comes to tape measures. Most of the items below can be obtained at your local hardware or backpacking store. However, some of these are specialty items, and you will have to search for those. An outlet such as Forestry Suppliers (www.forestry-suppliers.com) provides tools for archaeologists, and a search of the internet can probably discover other sources. The following is a minimal list, and your personnel experiences will lead you to delete or augment this over time.

- a large and comfortable daypack to carry food, water, cameras, clothing and additional equipment
- clipboard masonite, plastic, or metal makes no difference just so it is durable
- pencils (plural you are sure to loose a few) mechanical pencils are best because they require no sharpening. The best size is 0.5 mm with HB lead, which will give you a fine line that does not readily smear yet erases easily.
- erasers plastic or soft gum
- metric graph paper
- 8.5 x 11" unlined paper
- forms (see below)
- small metric straight edge ruler (15 cm)
- 3 m retractable metal tape measure that clips on to your belt
- 50 m tape measure useful in some situations but not essential
- a hand-held compass that allows you to set magnetic declination and has an inclinometer (a Silva Ranger for example)
- a GPS unit these vary in price considerably because some come with lots of "bells and whistles." You need one that provides reasonable accuracy and will read UTMs (explained below) so consider what additional features are really useful.
- flagging tape or pin flags to mark boulder locations
- Scotch blue painters tape to mark rock art panels (much preferable to masking tape because it does not leave a sticky residue in hot weather or if left on over night)
- Sharpie (fine point)

- UTM and Township/Range/Quarter Section scales
- backpackers headlamp or small flashlight (if you work in rockshelters)
- small hand lens or loupe for close inspection
- compact binoculars to check out those high ledges and cliff faces
- camera gear (see below)

STANDARDIZED FORMS: CREATING THE DOCUMENTATION

To establish a standardized record that is as comparable as possible to other site records, a number of forms have to be completed. The agency that archives your report, whether a state entity or a federal agency, has a number of prescribed forms that they expect you to complete. Some even have instruction booklets that accompany these forms or they will direct you to where you can obtain those directions online. Some of the information, like site location, has to be absolutely accurate while other responses you can provide to the best of your ability or simply state the information is unknown. Since no one form is universally employed, several examples are included in Appendix A and B so that you can have an idea of what kind of data are expected. Keep in mind that the site record you create is confidential information. Even though it will be entered into the public record, that report will have controlled access and will be limited to qualified researchers who have met certain criteria that is established by the archival institutions. The explanation of the how-to-do steps required to complete these forms is below this introductory description.

- 1. Rock Art Forms differ from state to state in format more than in substance (see examples in Appendix A). Each panel of rock art is assigned a reference designation (either a letter, number, or both) that corresponds to its physical location and the site map. On the form, that location is described in text or actual measurements from a datum point or baseline. The landform that the rock art occurs on will be noted (for example a boulder, cliff face, or rockshelter backwall or ceiling) and the kind of rock and its surface condition. For each panel the rock art form will list its dimensions, aspect (the direction it faces), inclination (the angle from the vertical), distance above ground level, technique employed in manufacturing the image, color of pictographs, the degree of repatination on petroglyphs, superimposition, and natural and cultural impactment.
- 2. Archaeological Site Report is usually divided into two parts: (1) an introductory page that includes specific site location information, ownership, and a brief general description, and (2) a section dealing with specific site context, which includes the environmental setting (landform, geology, vegetation, source of water) and the archaeological features and artifacts that are present (see examples in Appendix B). On many site reports the responses are coded because they will be inputted into a GIS data system for future analysis. Without access to the coding system, completing portions of the site report become problematic. The land manager will have a preference on how you are to deal with codification. If the site has been previously recorded, most states and agencies have an addendum form that you will use and add to the original record. However, sometimes the initial report is so limited in its description, the agency will have you file a new report.
 - 3. Location Map can be a sketch map, which gives visual clues on how to relocate the

site. Usually you can copy that portion of the appropriate topographical map and mark the site location. Be sure to include the township and range on your copied section.

- **4. Site Map** shows the location of all the rock art panels, major features, and diagnostic/significant artifacts on site. The more accurate this map is, the better. Some states will accept simple sketch maps that even lack scale. However, the norm is a scaled map actually surveyed with a transit and stadia rod, produced by GPS reading, or a compass and pace map.
- **5. Rock Art Panel Drawings** The drawings are usually done on an 8.5 x 11" blank sheet or on graph paper. These sheets must include the basic provenance for the drawing: site number, locus (if applicable), panel number, motif numbers, date, recorders name, and so forth. Since each sheet must contain this essential information, a small label can be easily formatted on your computer and then copied in advance onto the blank sheets to standardize this data (Figure 1).
- **6. Photo Log** This is used to record information about your photos. When taking 35 mm photos more information about each exposure is needed than when taking digital images since that data is embedded within each image. On a log for 35 mm photography (Figure 2), the data usually includes the name of the photographer and recorder, the type of film, the type of camera, the date, time of day, the film roll number, the exposure number, the subject, the aspect, the f-stop, the exposure, the lens size, any filters used, and any additional enhancements (flash, reflector, etc.). Digital logs may leave off the film, date, time of day, and f-stop, but need to include the number of shots at each location.
- 7. Motif Inventory Several states and agencies want descriptions of the motifs on each panel. This can be accomplished in two ways. One is to write a narrative describing the attributes of each panel and its motifs. It is important to use descriptive terms like "circle with a bisecting line," a "circle with radiating lines," or an "anthropomorph with attached zigzag lines to the head" and not interpretative terms such as "atlatl," "sun," or "shaman." The latter are subjective labels and lack any substantiating support. What you think something looks like is a matter of interpretation, and others may not share your opinion. The second method is to use a form with various motif categories already determined and simply tally the elements to the appropriate types. It take time and experience recording within a region to develop a motif inventory, which vary with styles, spatial distribution, temporal periods, and ethnic affiliations (Figure 3). While some researchers do their motif counts in the field as they go, it seems more prudent to spend field time recording and do the inventory analysis after returning home where digital enhancement may give you a better image of what is painted or pecked on the rock.
- **8.** Check-off Sheet is just for the use of the project leader to make sure nothing is overlooked in the documenting process (Figure 4). This is especially beneficial if you have a multi-panel site and are utilizing a number of people separated into teams responsible for different tasks like mapping, drawing, photography, and so forth. It is also helpful if you are doing a much smaller site on your own to make sure you obtained all your measurements, notes, and finished with such seemingly pedestrian tasks as getting the panel designation tape removed at the end. A major "sin" is to walk off from a site and leave your numbering tape inadvertently on a boulder it happens all the time.

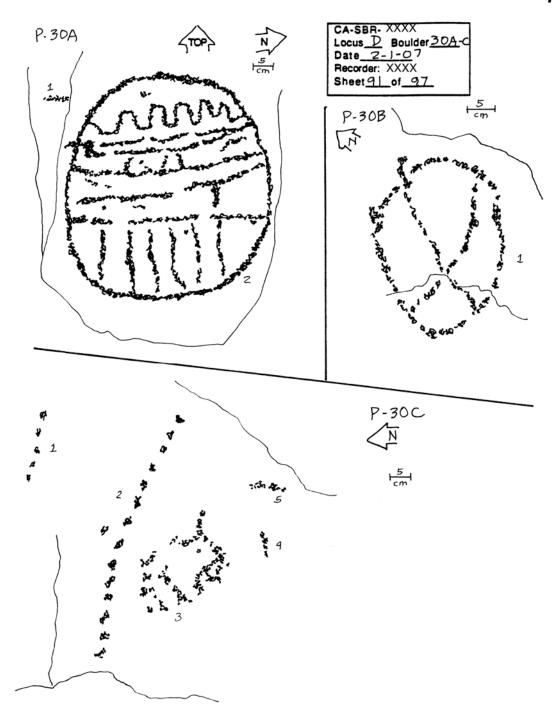


Figure 1. Typical rock art panel drawing with a standardized data box to record provenance. This example has been subdivided to include all three faces of one boulder.

PHOT	0 L0	G	Site No.:				i			
~~~~~	graphe	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u> </u>	i			İ			
Recor				•		: :	<b>†</b>			
***********	*********	-	ASA -				<u> </u>			
Color: Type - B/W: Type -			ASA -	******		<u> </u>	<del> </del>			
		Date		A	Bock	Aspect	S/S	fSton	Lens	Options
	1		Gubjeet	Locus	11001	Aspect	1	10100	20110	
	2									
	3									
	4									
	5									
	6						1			
	7									
	8									
	,									
	9									
	10									
	11									
	12									
	13			ļ						
	14									
	15									
	16									
	17									
	18			ļļ						
	19									
	20									
	21									
	22									
	23									
	24									
	25									
	26									
	27									~
	28		•							
	29									
•••••	30									
	31									
	32									
	33									
	34									
	35									
	36									
Color	Came	ra -								
********	Camera		***************************************							
***********		photos	-			<u> </u>	<u> </u>			

**Figure 2.** An example of a photo log for 35 mm photography.



**Figure 3.** An example of a motif inventory. These vary considerably from region to region. This example is for a locale which has very few representational motifs.

Page #

PROJECT SHEET
Site # Agency

Field Dates Hours Lab Dates Hours

Locus Panel# Map Drawing Photo Data Clean Up Inked Photo Archive

**Figure 4.** *An example of a project check-off sheet.* 

#### RECORDING: CREATING THE RECORD

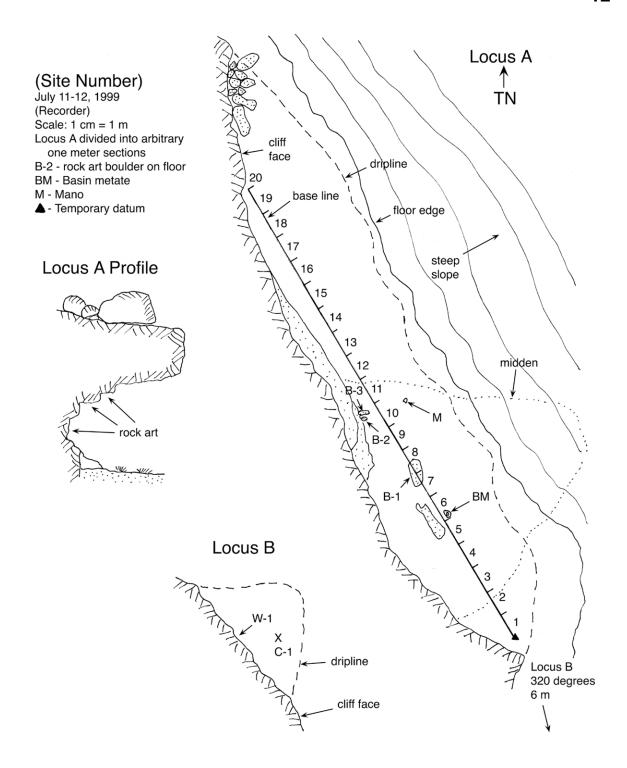
The whole idea behind documentation is the concept of replication. From your site report, people should be able to relocate the panels you recorded, look at your drawings and match them to the rock art panels, and read your description of the site attributes and get a sense of its archaeological and environmental context. Recording is a huge responsibility because in the event the site is destroyed either deliberately or by natural processes, then your report becomes the sole surviving record. Your goal is to obtain optimal documentation with minimal impact to the site.

1. Mapping - The initial step in mapping is to locate your site on your 7.5' topographic map. You should have a GPS unit that you are comfortable and competent with. You want to set your unit to use UTMs (Universal Transverse Mercator) as your coordinate system and not longitude and latitude. UTMs are 1 km units measured from established baselines. On more recent maps these units form a black lined grid pattern over your whole map. On older maps the UTMs are indicated on the four margins of your topo map with blue tick marks, which you have to connect with a pencil and a yardstick to create a 1 km grid. When your GPS gives you a reading, it will appear as a six digit easting and a seven digit northing, which will allow you to locate your position on your map (the reference numbers are noted on the map margins). It is also important that you record the zone reference, which is the regional datum point. Take your UTM reading from an obvious position and make this your site datum from which all subsequent measurements will be made. You will not be able to get a reading inside a rockshelter nor in really narrow canyons where you will have to rely on dead reckoning. Also set NAD 27 as your map datum on your GPS. Your unit usually comes with WGS 84 as its default reading, so you are going to have to change it. The reason for this is that your topo map uses NAD 27 as its datum, and you want your reading to obviously correspond to your map. Failure to do this will put your map plot several hundred meters from your actual position. You can buy a UTM scale that will help you plot the site location on your map or download your GPS coordinates to your computer and plot them in a mapping program such as All Topo Map (www.iGage.com). Your site report is going to ask you for the elevation, and the reading given by your GPS reading is not "spot-on" accurate. It is much better once you have located your position on your map to take your elevation from the map's contour lines. The dark brown lines are your index lines and will give you base elevation. You then count the number of light brown lines up or down from the index line. The contour interval between lines (this varies but is often 20' or 40', or 10 m) is given at the bottom of your map in the legend just below the distance scale.

Most site reports also require you to locate the site using township, range, section, and quarter sections. These units are indicated on your topo map by a red grid system that is referenced to an established meridian. In some parts of the western United States, township and range are not depicted because the area has never been surveyed either on the ground or by aerial photography. If that is the case, simply note that on the report and move on. If the grid is evident on your map, look for the heavy red lines, which are index lines and give you township (which will be a north or south reading) and range (an east or west designation). A single township covers 36 square miles and is subdivided into 36 one square mile segments each numbered, starting in the northeast corner, 1 through 36. The section number appears in red in the middle of each section. You need to denote which quarter section the site is located in, and a section scale will be helpful in making that determination.

Having established your location, the next step is locating all the rock art and drawing a site map. It is a fairly common practice to mark each panel of rock art as you find it, so you can relocate it for recording. This can be done with pin flags, flagging tape, or blue Scotch tape placed near, but not on, the motifs. You can also start enumerating the panels during this step by writing the panel number on the tape or flagging. It is best not to apply tape to more panels than you can record in a day. You can probably leave tape on over one night, but don't push your luck by leaving it in place for several days especially in hot weather. Cattle have been known to eat flagging and the vinyl portion of pin flags, so be aware. Once you have found all the panels, you can proceed to mapping. Your approach will depend a great deal on the physical layout of your site. If you have access to, and the ability to use, a transit and a stadia rod or the newer laser/digital equivalents, you need no further instructions here. Most researchers use the tried and true compass and pace method. First of all, you want to take the magnetic declination for your map and set that reading into your compass so it corresponds to true north or grid north and matches the orientation of your topo map. Declination information for every map appears in the lower left hand corner of the topo. The top of your map is always north. Be sure to draw a north arrow on your site map and label it GN or TN. If your compass does not have a declination setting, you can use magnetic north readings, but again label the north arrow on your map accordingly. Determining distance can be done with a long tape measure (use a screw driver stuck into the ground to secure one end of the tape if you are working alone) or by pacing. You can practice at home to get the feel of pacing off a meter distance. Of course pacing on your back lawn or driveway does not translate to pacing over broken, rough terrain or on a slope, so be prepared to make allowances. The other major feature a map must include is the scale, and that will vary according to the size and nature of the site.

Rock art on a linear feature, like within a rockshelter or along a canyon wall, are the easiest to map. Simply establish a datum point at one end, lay out a baseline along a given azimuth (direction), and pace or measure the distance along this line to your panels or other features. If the whole wall is covered with images, you can arbitrarily divide the distance into smaller units, for example meter increments, to facilitate recording. If you have elements in a rockshelter on both the backwall and ceiling, you can use the same unit designation and just subdivide it as wall or ceiling (Figure 5). If the wall has a curve or a bend in it, then establish a secondary datum point at the end of the first baseline, shoot a new azimuth and run another



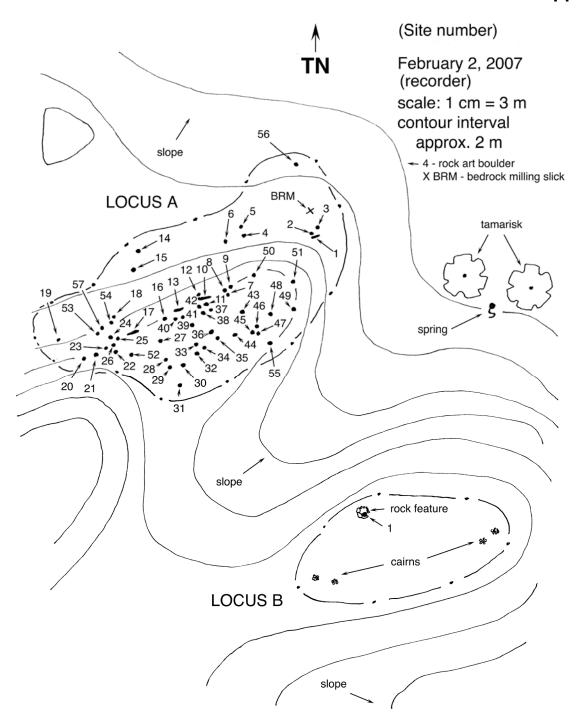
**Figure 5.** A site map that utilizes a baseline. The rockshelter was arbitrarily divided into one meter sections. Panels within each section were designated W for wall and C for ceiling. A profile sketch was included on the site map.

straight line. This will create doglegs in your baseline but will still allow you to have an established reference point for measurements. It is fairly easy to measure distance from a baseline, but you need to make sure that your measurement is perpendicular to your baseline. For example, if the azimuth of your baseline is 220 degrees, then to mark distance to the right of your baseline, make sure you measure along a bearing of 310 degrees so you can accurately plot this when you make your map. Make sure you take a GPS reading at least at one end of your baseline, and if it is an extended linear feature, take another at the other end. You should also do a cross section diagram of rockshelters to indicate the depth and height of the cave and which surfaces the rock art appears on.

Mapping a site with scattered boulders over a larger area is a bit more time consuming. Unless you are blessed with an extremely expensive GPS unit that has submeter accuracy, taking a UTM reading at each boulder is going to be compromised since there can be as much as a 2-4 m margin of error in each reading. If you have a series of boulders within that radius, it is very likely you can get the same reading for all of them so test the accuracy of your instrument in advance. Designate a primary datum (perhaps the most visible rock art panel on the site) and take a GPS there and on a number of rock art boulders or features on the periphery of your site as secondary datum. From the known datum points, you can calculate distance and direction to other boulders on the site using a compass and pacing or a tape measure (Figure 6). For boulder sites spread along a ridgeline, for example, the best method may be simply to take an azimuth and measure the distance from one boulder to the next, repeat the procedure, and keep going to completion. This makes it absolutely imperative that you are correct on each reading since any error is compounded from that point on. Take a UTM at your last boulder to make sure you are where you think you should be. Mapping will be a major concern for any novice recorder, but with each outing it will become easier, although you will always encounter some sites that are more challenging than others.

The question always arises of how to handle a site, which has extensive gaps in the distribution of rock art panels. The usual practice is to designate scattered concentrations as loci. The question then becomes how far between loci before another site number should be used. There is no hard and fast rule on this from one state to another, but you should check with your resource manager to see if some protocol does exist in your area. Usually common sense is employed. If the distance between rock art loci is 100 to 200 m, they are on different landforms, or have entirely different styles or techniques, a new site may be warranted. If your site does have two or more loci, it would probably be much easier for you to map each locus on a separate page rather than construct one overall map of large scale. Keep your map to 8 1/2 x 11" in size. Foldout maps of larger proportion are unwieldy to use in the field for anyone who has to come out and monitor your site.

It is also important to note on your map archaeological features (structures, cists, granaries, hearths/roasting pits, midden, bedrock milling features, and artifact scatters), the exact location of diagnostic artifacts and milling tools, significant geographical features, drainage patterns, and even trees if you are not in a forest and trees are distinctive landmarks. Of course it is paramount to get all your rock art panels marked on your map. The usual practice is to label panels in numerical order from one to whatever it takes. Using letters of the alphabet is not a



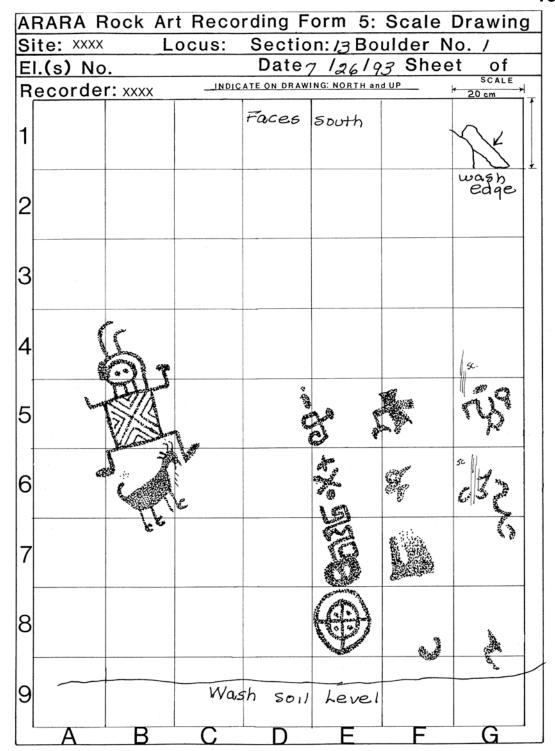
**Figure 6.** A site map with petroglyph boulders scattered over a large area. UTMs were recorded for B-1, 6, 14, 19, 31, 55, and 56 in Locus A, and B-1 and the cairns in Locus B. From those known locations, the other features were located using a compass and tape measure.

good idea because you may have more than 26 features. Letters are usually reserved to designate multiple faces of a single panel (1A, 1B, etc.).

2. Drawing - This step may be the most frustrating because few of us are blessed with natural artistic ability, but the visual component of a site report is it's most important aspect. Artistic skill has little to do with producing a good drawing - the key is to draw what is actually on the rock and not to create something of aesthetic merit (although the two are not mutually exclusive). Most of you will be tempted to skip this step altogether and instead substitute photography for the visual record because it is easier and quicker, but drawings serve an important function. First, if a site steward or an archaeologist comes out to the site to monitor, they want a record that can be easily handled in the field. Copies of the site report and drawings on standard sized paper can be attached to a clipboard and be referred to even if it's windy. Images burned on a CD disc or photos/slides in sleeves are not field friendly. No one is going to carry a laptop several miles to view digital photos, and printing multiple prints of panels is costly, but possible. Secondly, and more importantly, many of the details of a panel will not be visible in photos. Attributes like scratching, repecking, repainting, and superimposition, just to name a few, are very hard to discern from a 35 mm or digital photo alone. Capturing the image is of course of major importance, but the technique employed by the prehistoric creator of rock art is equally important to the later analysis. How many of us go to a site, take photos, and then when we view those pictures upon returning home are amazed to discover all kinds of significant characteristics that we did not perceive when we were in the field staring through our camera's viewfinder. The biggest argument in favor of drawing is that it forces you to observe the details, and details are very significant.

Trying to tell someone how to create a scaled drawing is beyond the scope of this booklet. The method you employ is dependent upon your ability and comfort, however, several approaches can briefly be mentioned. Using a string grid is very widespread. This requires you to take light cotton string, and using silk or cotton thread, construct 10 cm squares. This can be done by construction the grid on a 1 m square wooden frame to help you maintain the 90 degrees orientation of each intersection. When completed, the string can be removed from the frame and you have a grid that is lightweight and easily compacted into your pack. In the field, the grid can then be secured over a panel with tape, and a drawing can be done on graph paper partitioned off into corresponding grids. This method is excellent because it gives you numerous reference points to replicate a motif and allows you to control your scale at the same time (Figure 7). Some prefer to leave the string grid attached to the wooden frame, but that can be more cumbersome to carry around and to use on sloping surfaces. Drawing a ceiling panel in a rockshelter is a challenge with any kind of a grid unless you have lots of helping hands.

Another method is to simply measure reference points as you draw. If you consider that 20 cm will just fit on to a  $8\ 1/2$ " wide sheet of paper, then if you use a scale of 1 cm = 5 cm you can draw a 1 x 1 m area on a page easily and create any number of subdivisions that are necessary. If you use small pieces of tape to mark those dimensions off on the panel and additional tape markers for 25 or 50 cm divisions, you can in essence create a reference grid. This works best if the panel is not too "busy" (a dense number of elements). If time is a major problem, then doing a free hand drawing to approximate scale with overall dimensions noted on



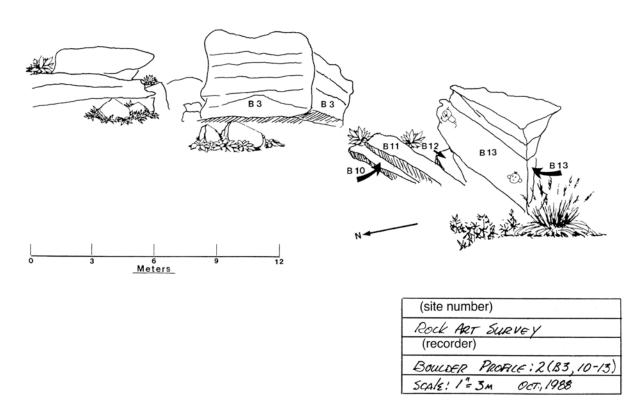
**Figure 7.** A panel drawing using a string grid with a standardized rock panel form. It is more common now to use graph paper with a blue grid, which does not show when reproduced.

the drawing may be the only alternative. However, unless the site is really remote and hard to reach, it is better to return another day and obtain scaled drawings.

There are several publications that you have probably seen where the recorder has traced the rock art panel on pliofilm or some other type of transparent plastic sheets. Professional archaeologists have usually done these tracings; however, you should not attempt this without consulting with and getting the approval of the agency archaeologist you are working with. Some rock surfaces, such as tuff and some sandstone, are just too friable to accept tracings, particularly of pictographs. You will find that on occasion you cannot even get a piece of tape with the panel number or a tape-backed scale to adhere to the rock let alone a sheet of plastic. When in doubt about your impact upon on site, always exercise restraint and caution. Tracings, particularly of really large panels, are very bulky and presents problems of curation. To produce reduced versions of scale replications requires additional efforts. The last consideration on tracing is that lighting conditions at the time of recording can make the process every bit as subjective as drawing or photographing under poor conditions, and just like the process of chalking years ago, errors can be made. With enhancement of digital photography, you can probably do a better job of determining the substance of a motif, which makes the whole practice of doing tracings questionable.

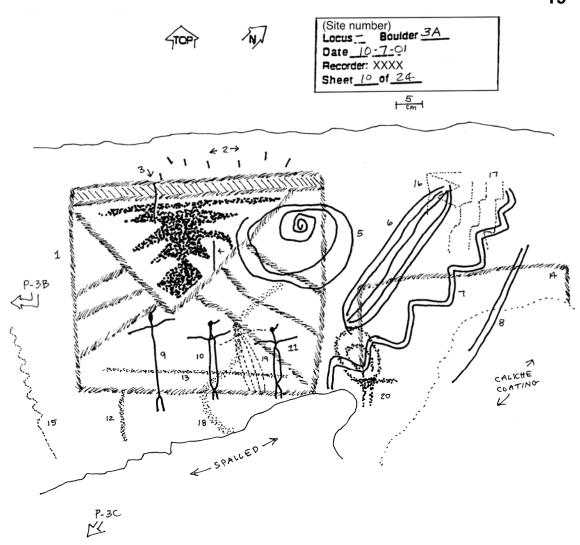
Getting elements in the proper proportion and the correct proximity to each other is always a major problem. Combining photography with drawing is one way to deal with that concern. If you take a slide or a digital photo of a panel and then go home and project it on a wall (or a light table if you are so equipped) with a slide or LCD projector, then you can trace the elements onto paper. If you have a scale in your photo, you can trace that also to create a bar scale on your drawing for reference. In the field you can then concentrate on drawing those details, which may not be very distinct in your photo. The great advantage of digital photography is that you check your image on the spot to gain a general impression of what is visible and what is not. You can then take close-up shots to try and capture those questionable details if possible. Tracing just from photos alone is not enough, and your field drawings need to be incorporated for more accuracy. Whenever possible, taking your rendering back into the field for a final check is very desirable.

Normally each panel is drawn on a separate sheet. However, on sites with scattered boulders, which may have only a single element, you may choose to record two to three boulders per page just to economize (Figure 1). Conversely, in attempting to draw a really complex and large panel, it would probably be best to subdivide into smaller segments so as not to lose any detail. You can even do additional detail drawings of significant portions from subdivisions of a larger panel, whatever it takes to gather the essential data. In the process of drawing the panel motifs, also include the rock surface outline (when possible), major cracks, natural cavities, spalls, areas of lichen growth, mineral stains, rock scars, graffiti, bullet holes, prehistoric "mudballs" (pigment or mortar thrown against the wall), and even random pecks. Also look for the incorporation of cracks and cavities into the rock art motif. It is helpful to do an overview drawing of the site showing the location of individual panels (Figure 8). This works best with a rockshelter or a cliff face, which are usually more compact, and almost impossible to accomplish if the site is on scattered boulders over a large area.



**Figure 8.** An overview sketch of panel locations on a large linear site. The site was mapped using numerous secondary datum and overviews were drawn from each mapping station.

Whatever approach, or combination of methods that are employed, the final drawing needs to be inked with permanent, acid free ink (not a felt pin) or finalized as an electronic drawing in a program such as Adobe Illustrator. If you have great patience, you can use a Rapidograph pen with India ink (they clog frequently and are difficult to clean), but there are a number of technical pens on the market now, some of which are easier to use than others (Staedtler for example) so you need to experiment to find what works best for you. Pencil drawings for a final report are not acceptable because they can smear, and if they get wet, they will not survive. A major concern is that pencil artwork does not reproduce very well and copies need to be made for repositories, monitoring, your own records, and numerous other reasons. Pictographs documented with colored pencils are good for showing the colors used but also reproduce poorly. Doing a black/white rendering of a multicolored images is a problem, and some type of convention or notes are needed to indicate what colors are present (Figure 9). Drawing petroglyphs in the field and later inking them also require some effort since the density of pecking, the size of the dents, and the degree of repatination will differ. Stippling with different sized pens in the inking stage or labeling with notations can be used to denote these characteristics (Figure 10). All final renditions should include a scale or a least a note when there is no scale. Some panels may occur high on inaccessible cliff faces that preclude any measurements.



```
E1- RED/BROWN INTERIOR ELEMENT W/GRAY AND DARKYELLOW EXTERIOR-ALL P.S. E2-11- DARK RED P.S.
E 12-13- RED BRUSH
E 14- GRAY P.S.
E 15-17- WHITE P.S.
E 18- WHITE-FINGER
E 19- PARK YELLOW P.S.
E 20-PETROGLYPH
```

**Figure 9.** A rock art panel drawing of a petroglyph and pictographs painted in multiple colors with fingers, a brush, and pigment sticks. Some system of conventions needs to be used to note the various attributes of each motif.



**Figure 10.** A rock art panel drawing of petroglyphs showing a method of denoting the differences in repatination of the motifs.

**3. Photography** - It is common practice in recording rock art to take black/white prints and color slides of each panel. The idea is that prints can be used for any possible publications and offer the best archival record. Transparencies record the hues of pictographs and the shades of petroglyph repatination. Color slides, despite their potential loss of color saturation over time, suffer less deterioration than color prints and can be used for presentations. The practice of taking B/W and slide photos is not always adhered to because the various land agencies lack the financial resources to underwrite the monetary expense. With the advent of digital photography,

the rules are changing since cost is a minimal factor and black/white images can easily be made from color digital photos. Taking your photos in TIFF format is preferable to lower resolution JPEG images. How resistant digital imagery burned on a CD is to deterioration over time is still being discussed, but currently no definitive conclusion has been reached. The other concern with any new technology is what formats will survive into the future and what will become obsolete think back on all the major changes in recorded music for example. For now digital photography should be used as a third photo regimen to be employed in rock art recording. One nice feature of digital recording, is that you can check each shot before you leave the field to make sure you have a satisfactory photo. The other great advantage to digital photography is that once you return home and download your shots to your computer, you can use several software enhancement programs, which can be a great aid in revealing more details of the rock art elements. Adobe Photoshop is the most popular program, but it does take a great deal of practice and time to become competent with its various applications. D-Stretch is another such program and is easier to use. Most computers come bundled with enhancement features. Pictographs, in particular, can be altered in such a way to make visible what often cannot be seen with the eye under natural light in the field. Petroglyphs can also benefit from enhancement. If you have taken slides, you should scan them into your computer for manipulation and color preservation. Take the time to learn how to use enhancement programs, and you will be amazed at the results.

The choice of camera equipment is one of personal choice and dependent upon affordability and the other uses you have for photography. A better result can usually be obtained with a single lens reflex 35 mm or digital camera rather than a "point and shoot" because you have more control over depth of field and exposure. Pixels do matter but so does the cost. The use of a tripod is probably the one practice that can improve the quality of a photograph more than any other factor. However, practicality and time are the drawbacks. Dragging a tripod to remote sites in rugged terrain can be a daunting task, and then using one takes more deliberation and available time on a site may be a factor.

In taking photos, the process is pretty simple on the surface - get as perpendicular as possible to the panel and shoot away. If you are forced to take the photo at an oblique angle, note that in your photo log. Take extensive photos, and do not forget to take overview shots of the site from several directions because those can aid others in relocating the site in the future. Taking good photos is obviously not that simple; otherwise, when you go to conferences and listen to presentations you would see nothing but great images, and that is hardly the case. Some type of scale and identification is needed for your photo, and this can be elaborate or simple. There are a variety of commercial metric scales that are available, and by simply folding tape over on the back of the scale to create a double sided surface, you can usually get them to adhere to the rock (there are some friable surfaces that defy any attempts at this, and you will have to hand hold your scale). Make sure your scale is not placed on any rock art element. The use of a "mugboard" or photoboard is a traditional archaeological practice. This is a special ribbed black board with interchangeable white push style letters and numbers upon which you can place all the pertinent provenance for each panel. This would include at least the site number, locus (if applicable), panel number, element numbers (if you are doing only a portion of a large panel), and date. It also helps to attach a movable north arrow and a color correction scale to the board. While

mugboards really look "professional" in photos, there are some drawbacks to using them. One is the cost and another is that you have to carry a compartmentalized box with all the characters (which are easily lost). While recording, it usually takes one person to just change the numbers for every panel and hold it in place for each shot. A cheaper alternative is to use a small black or white board for provenance. All the requisite information can be included, and it takes only seconds to erase the previous panel number and write the next one, although with repeated use the surface becomes quite smeared. The problem with photoboards is that they can often dominate the photo. To get the whole board into the photo frame, you often have to back up, and in so doing, with small rock art motifs, they become too small to discern their details. However, the photoboard makes each photo self contained as far as identification data is concerned - it's visible in the image, and thus, its use is preferred for that reason.

Some agencies now prefer the photo record to be digital; the cost factor and storage being the major considerations. A simple approach to handling photo data is to take a clearly labeled blue tape, with the locus and panel number on it, and attach it along with a small scale clear of any motifs but in close proximity. The IFRAO scale available from AURA has a color correction scale and black/white metric divisions and is only 10 cm long. This approach offers the least intrusive presence, is good with very small elements, and works well for individuals working alone - you only have so many hands. Some will rightfully argue that this is not enough provenance, but in the digital age, the images will go into your computer can be inserted into a folder labeled with the site number and each image can be labeled with locus and panel number before being burnt onto a CD. Consult with the land manager to find out the agency's preference for the photographic record. If they want B/W and 35 mm slides, each image must be labeled with the corresponding identification for ease in sorting and stored in archival acid-free sleeves. Your photo record sheet will need to accompany your final report.

In rock art recording, light is everything. The changing light patterns throughout the course of a day (and even across the seasons of the year) affects the visibility of rock art and obviously the ability to obtain decent photographs. Some panels, mainly petroglyphs, can be photographed in full sun. A polarizing lens should be a standard part of your tool kit and works well on patinated images on basalt or sandstone at certain times of the day. Generally speaking you do better shooting in full shade, particularly with pictographs. You cannot always coordinate your site visits to correspond to optimal lighting conditions, so manipulation of shade is a common practice. There are a number of companies that manufacture collapsible sunshades and reflectors of various sizes that can be used to completely shade or provide diffused light on a panel (particularly at those times when you have half sun, half shade). Most of these discs come with a reflective side that can be used to direct silver or golden light onto panels in dark recesses. The draw back is you have to have a second person with you to manipulate the reflector shield, and in high wind they are really a problem to hold steady. For solo recorders, a black umbrella will serve the same purpose and you usually can photograph with one hand (another reason for a tripod) and hold the umbrella at the appropriate angle with the other. Be prepared to replace your umbrella on a regular basis since the wind can turn them inside out in a hurry and render them useless. The alternative to this is to spread your other recording activities around the lighting conditions. You will probably find that you can obtain favorable photographs of different

portions of the sites at different times of the day. You may not like to do this in piecemeal fashion, but this will yield better results. This also underscores the importance of keeping a photo log or a check-off list since you will probably not be able to shoot your panels in numerical order. Logging your shots keeps you from missing any, particularly on a larger site. In extremely dark conditions, such as the recesses of a shelter cave or inside cliff dwelling structures, a digital camera can be used for "prospecting" for rock art that you are unable to see with your eyes or a headlamp. Photograph the wall or ceiling in a systematic fashion and then check the LCD screen on your camera after each shot. You may be very surprised at what your camera can reveal. Along the same lines, it is very wise in photographing pictographs to take shots several meters beyond the apparent limits of visible images. Even though nothing shows on immediate review, save the image and bring it home and enhance the photo. Researchers are finding more "hidden" images all the time outside the parameters of normal vision, particularly of red paintings on granite, by taking the extended overlapping photos. Another method is "ghost glyphing" which is used by some in photographing pictographs. This involves deliberately waiting until near dark or total darkness and then using a tripod and flash to take the photo of your panel. This completely eliminates any ambient light, which creates those confusing shadows under most conditions, and substitutes the more uniform illumination of your flash. This works very well, but the drawback is that the walk back to your vehicle in the dark can be an adventure - bring a headlamp or flashlight for the trip back.

**4. Description** - If you have perused the various examples of site reports in the appendix, you know that there is extensive information requested about the rock art and the context of the site, so a number of observations are necessary.

The physical attributes of the rock art needs to be detailed. If you have pictographs you obviously need to note their color. Trying to describe the color of a painting can be more complicated than it seems - the term red may not be adequate because a variety of hues of that color can exist on one site. Some researchers use the Munsell Color Chart, which assigns a code to 322 different earth shades and provides a universal standard that others can easily interpret. The Munsell comes in a binder that weighs about a pound and costs just over \$100. One handicap in using a color chart is that pictographs often undergo deferential weathering or have mineral accretions covering portions of them making it difficult to determine what the original color actually was. You also need to describe the technique in which the pigment was applied. The most common methods of application is with a single finger, multiple finger streaks (parallel lines with three or four digits), or a brush. The use of a pigment stick to produce a thin, sketched line, much like a crayon, is found in some areas. When the sketching is done with a white pigment stick it is very difficult to distinguish it from scratching, and you may have to examine it closely with a hand lens to make that determination. The placement of painted handprints is done in a variety of ways. A positive handprint, where pigment is applied to the entire hand and then impressed on a rock surface, is the most common. Do note if both right and left hands are depicted, or one is preferred over the other, and especially their relative size. Negative handprints can be made by holding the hand to the wall as a stencil and then blowing paint around it to create an outlined image. An elaborate decorated handprint is produced by painting semicircular lines on the palm that connect to opposing painted digits and then pressing it on a surface. This gives the

impression of a swirl pattern. Look also to see if the surface of the rock has been prepared, usually by abrading, prior to the application of any motif.

Petroglyphs also reflect distinctive features. Differences in the degree in repatination should be noted. While obviously subjective, the use of such terms as "heavy," "medium," and "light" repatination should be made. Differences in the degree of repatination on the same surface with uniform mineral stain or accretion layers are crucial to establishing relative chronologies on a site, so make special note of such features. The Munsell chart can also be useful in determining the shade of petroglyph repatination so future researchers can determine possible changes. The individual fracture scar or depression made by striking the host rock with a hammerstone is called a dent. Dent size is usually classified as small, medium, large, in addition to being occasionally diagonal (oblique strikes). Petroglyphs also are manufactured in a variety of ways besides pecking and can include scratching, abrading, and, on rare instances involving soft stone, incising. Indirect percussion is also used occasionally, in which the dent is produced by striking a stone or bone "chisel" with a hammerstone to produce the dent. Examine the edge of the element for a straight, clean line to detect chisel use. Careful attention should be paid to light repatination because sometimes what has actually occurred is that older petroglyphs have been reworked by pecking or abrading. Also examine scratching closely. While many scratched motifs are more recent and positioned over older pecking or painting, some predate the other rock art on the panel. It often requires a hand lens to determine what is superpositioned over what. Scratching sometimes is used to preform or initially outline a motif and can be partially obliterated by subsequent pecking or painting, so look closely. Another rare phenomenon is petroglyphs that have been painted or motifs that involve both painting and pecking. Do not overlook cupules (small ground or pecked nonutilitarian depressions on vertical or horizontal surfaces) or abraded grooves. Overall, probably the most important observation you can make involve the presence of superimposition. Images that have been produced, one on top of the other, are one of the best indicators for establishing a chronology of styles.

It is common practice to physically measure the rock art, usually right after you have finished your drawing when the extent of the panel is still fresh in your mind. You can measure all kinds of attributes: the entire rock face, the dimensions of just the decorated surface, "key" elements, or even each element separately. You need to measure the height of the lowest motif from the current ground level. Aspect, or the direction the panel faces, is recorded with your compass. Beware that some rock, particularly basalt, may create a magnetic anomaly, which will prevent you from taking a reading right next to the panel. If your compass needle seems stuck or is bouncing all over the place, keep the approximate orientation, back off several meters, and see if you can get a stable reading. While you are shooting the aspect of your panel, take the azimuths from the panel to the two far extremes of the horizon. This may aid later researchers who have an interest in any archaeoastronomy potential of the site. The inclination of the panel also needs to be measured. This is the degree at which the face of the panel is oriented from the vertical. If the panel is horizontal on the ground, its inclination is 180 degrees; if it is straight up and down, it is 90 degrees; and if it is directly overhead, its inclination is zero. A decent compass comes with an inclinometer that makes the measurement easy to obtain. If you do not have that, readings can be taken using a plumb bob and a protractor. It is common to measure the range of

line width and depth of petroglyph elements. On cupules you measure their depth and diameter. If there are innumerable cupules present, as there can often be, measure the range of their depth and diameter only.

The physical condition of the rock art and the site in general must also be assessed. Obvious cultural impactment to the rock art such as graffiti, chalking, gunfire, or deliberate attempts at removal of portions of the panel should be noted. Graffiti on panels should be drawn right along with the rock art (for monitoring purposes). Some historic inscriptions have important significance to historians and archaeologists, so do not simply disregard them. For the site in general, look for historic trash, vehicle tracks, social trails, pothunter holes, or cow manure (cows will get inside rockshelters and virtually rub pictographs right off the walls). Keep in mind that historic features that predate 1950 are considered part of the archaeological record, so do not remove purple glass, tobacco cans, and solder-bottomed cans, etc. because you think you are being a good steward. Environmental impactment also needs to be catalogued. On the rock art panels look for spalling (exfoliation), block fractures, lichen growth, lamination layers from mineral accretion, water erosion staining, plant defacement (usually the wind blowing plant limbs across a panel), and animal nesting (which includes guano deposits from birds and bats). Expected natural processes on a site are usually related to water in the form of major erosion from drainages and sheetwash or deposition, particularly in rockshelters where panels can be partially buried. Plants can obscure rock art and sometimes make them completely inaccessible (in the West, tamarisk tops the list of obstacles). If you encounter what appears to be very recent vandalism do not tramp all over the area; it is a crime scene, and you could obscure possible evidence. Take photos from a distance, and then contact authorities as quickly as possible. If you actually observe someone damaging an archaeological site, do not confront them but quickly leave, get a license number and a vehicle description if possible, and call law enforcement. A significant number of pothunters are involved in the drug scene and should be considered armed and dangerous.

Recording rock art without giving equal attention to the environmental and archaeological context of a site produces a record of limited use. No serious interpretation of a site can ever be attempted without those crucial components. Site reports ask you to describe the setting of the site and its relationship to its immediate environment and the general region. This will include the most immediate source of water, the type of source (spring, seep, tank, stream), and its distance from the site. The general plant community and the specific vegetation types within are of interest. Certain ecological zones can be a key to regional distribution of archaeological sites and some plants were potential subsistence resources. Common names for plant species can be used on the report. A basic description of the geology of the region is helpful, and the host rock that the paintings or petroglyphs occur on needs to be identified. If you are completely unfamiliar with the flora and geology, there are usually field guides that can be purchased locally.

Despite the fact that you have hopefully drawn all the cultural features on your site map, you still need to describe them. Features include single and multi-room structures, storage units (both above and below the surface), partial walls, wooden or brush structures, hearths, roasting pits, prehistoric trails, midden soil (dark and greasy), and bedrock milling features, among others. These have to be measured, and their characteristics described. Artifacts need to be noted and

described. Do not remove anything from its location, even to ask someone what it is. If you are really stumped, then get someone who is knowledgeable to go to the field with you and give you a crash tutorial. Many areas have local avocational groups who might offer aid with artifact identification and participate in recording. You need to designate on your map and describe all projectile points, bifaces, hammerstones, flake tools (like scrapers), core tools (like choppers), manos, pestles, portable metates and mortars, bone, vegetal materials, and concentrations of debitage and ceramic sherds. Debitage, or chipping waste (the residue from manufacturing flaked stone tools), has to be catalogued by the material it is made from. If you can distinguish primary, secondary, and retouch flakes by all means do so. Diagnostic artifacts, such as projectile points and sherds, are especially important because they have a type name, are associated to a chronological period, and have an areal distribution. Unfortunately, diagnostics are the most common item to be looted from a site by "relic collectors." If you are fortunate enough to find a projectile point, then draw, photograph, measure, and include it in your report. Projectile points usually are only considered diagnostic if the means of attachment (the base) is intact, but tips and midsections should be noted and measured. Ceramic sherds are difficult to name unless you have experience in the region, so the best you can do is describe in detail the surface color and treatment, paste (the interior clay material), and temper. Surface color can be tricky since some vessels are deliberately smudged on their interior surface, their surface can be slipped with a thin layer to achieve another color, or if the sherd is a cooking vessel its exterior can be blackened. The color of the paste and the temper added to that paste are the diagnostic attributes. Turn the sherd to the broken edge and use your hand lens to see what small particles (quartz sand, crushed sherds, rock particles, etc.) are present. Temper in particular can help an archaeologist identify the sherds you have found. If you observe decorated ceramics, then take the time to draw the sherd designs, even though it may be fragmentary, since decorative motifs can also help in typing the artifact. Fully reporting on all the artifacts you observe is very important since they are more likely to disappear due to theft or erosion than even the rock art.

#### SITE ETIQUETTE: PROTECTING THE RESOURCE

During the recording process there are number of things to keep in mind to make sure you do not inadvertently damage a site you are trying to protect.

- 1. If you need to visit the site repeatedly, there are several considerations you need to keep in mind. If there is no visible trail to the site, you do not want to create one, so seek a different route every time you go. The creation of a "social trail" draws attention to the site, which might have unintended consequences. If there is already a trail, don't take shortcuts and create a new one. Any trail can cause erosion and seriously damage the integrity of the site.
- 2. Be careful where you walk once you are on site. Do not walk across rock art panels to get to another set of images or climb on prehistoric walls. Vibram-soled boots are great for hiking but can leave scrap marks on a rock outcrop and tear up the dirt floor of a rockshelter. If you suspect, or see, perishable artifacts within the soil like "nubies" or matting, it might be prudent to remove your boots and work in your stocking feet.
- 3. Do not touch the rock art. Your skin contains natural oils and acids, which can cause staining (particularly to limestone) and other damage, possibly compromising future dating

procedures. Do not place tape on any images, especially pictographs, because in removing the tape you could remove some of the pigment. Some types of tape can leave a residue.

- 4. If you find artifacts on the site, do not remove them. Artifact collecting is a federal offense punishable by incarceration and/or fines. If you pick up artifacts to examine them, make certain you return them to the exact place you found them. Moving artifacts destroys the provenance of the site, which is important to interpretation. If collection piles (artifacts collected by previous visitors and placed in a conspicuous spot) exist, do not scatter the artifacts over the site. Archaeologists need to know the site is disturbed and that those artifacts are out of context. Be sure to note collection piles in your report.
- 5. Do not make tracings, rubbings, or molds of rock art. Direct contact of plastic to pictographs can cause spalling. Rubbings can cause abrasion, exfoliation, and sometimes leave behind residues of the materials used to make the rubbings. Molds can contaminate the surface negating future dating. In casting a mold, there is a possibility that it might adhere to the surface and cannot be removed. There are several prominent western sites with latex permanently obscuring portions of panels.
- 6. Do not try to enhance rock art by outlining images with chalk, crayon, marking pens, or any other materials. This is destructive and is considered vandalism and you could be prosecuted. The practice of wetting pictographs with water applied by a spray bottle is controversial. It would be best not to do this without professional input.
- 7. Do not try and remove lichen, animal nests, guano, paint, chalk, or any other element used to produce graffiti. There are people working on dating lichens, and pack rat nests are frequently used to obtain chronological data as well as botanical evidence. The removal of graffiti can only be done by a professionally trained conservator because of the complexity of the chemical makeup of the graffiti. A conservator has to test for the composition of the foreign element and then decide on the best method for removal. There are too many variables involved and improper actions can result in more damage to the site than the original act of vandalism. Do not compound the problem.
- 8. Do not excavate next to a panel that has been covered by fill or deposition to see buried portions of the rock art. You may destroy the strata, subterranean features, or the provenance of artifacts, thus the integrity of the site. If a panel is buried, just draw it to the soil line, make a notation, and move on. If excavation is desired, the resource manager will make that decision. There have been several major sites on horizontal bedrock that have been exposed by excavation under professional supervision.
- 9. At the end of the recording project, walk the site one more time to make sure you have pulled all your tape, removed any flagging or pin flags, and picked up any trash. The bottom line on recording is to leave as little impact on the site as possible. Your footprints should be the only indication you were ever there.
- 10. Site confidentiality is of paramount importance, so do not reveal the location of the site or take visitors to the site without the permission of the owner/resource manager. What is in play here is the law of unintended consequences. You, of course, would not harm the sites, nor would your family members or immediate friends. But once word of a site starts to filter out it eventually may reach individuals you do not even know who have no appreciation nor respect

for rock art, and then there can be problems.

All the procedures outlined above can seem daunting and overwhelming. But keep in mind that rock art recording is just one aspect of the discipline of archaeology, and it requires just that, discipline. Rock art has a finite existence, and it takes time and effort to replicate a record that will convey the inherent data of a site, which may outlive that resource. Probably the best way to become proficient in recording is to get involved in a formal instructional program. The New Mexico Archaeological Society, the Arizona Archaeological Society, the Rock Art Foundation (Texas), and the Nevada Rock Art Foundation, among others, all offer opportunities to be involved in supervised documentation projects that stress instruction and even offer certification.

#### **BIBLIOGRAPHY**

Finding additional information on documenting rock art sites is difficult. This is not because there is a lack of sources, but some of the best guides are out of print, had limited distribution in the first place, or occur in publications and newsletters that are hard to find. Judging just from the number of articles perused, there is much more literature in Australia, South Africa, and Europe on the methodology of recording than there is in the United States. What follows is just a sampling of sources you might be able to obtain.

#### Bancroft, Bill

2004 Rock Art Recording Guide. Archaeological Society of Central Oregon.

#### Bock, A.J., and Georgia Lee

1992 Footsteps to Destruction: A Guide for Visiting and/or Recording Rock Art Sites. In *American Indian Rock Art*, Vol. 18, edited by Frank G. Bock, pp. 23-26. American Rock Art Research Association, San Miguel, California.

#### Bock, Frank G., and A. J. Bock

1986 CA-SHA-39: A Lesson in Maximizing a Rock Art Site. In *American Indian Rock Art*, Vol. 10, edited by A.J. and Frank Bock, pp. 62-78. American Rock Art Research Association, El Toro, California.

1990 Rock Art Recording: The Need for Thorough Research in Order to Provide Sufficient Retrieval Data. *Proceedings for the Society for California Archaeology*, Vol. 3:175-193.

#### Clewlow, Jr., C. William, and Mary Ellen Whelling

1978 Rock Art. An Introductory Recording Manual for California and the Great Basin. UCLA Institute of Archaeology, Los Angeles, California.

#### Crotty, Helen K.

1992 The Archaeological Society of New Mexico's Rock Art Recording Field School at the Three Rivers Petroglyph Site. *Cultural Resources Series* No. 10:31-43. Bureau of Land Management, New Mexico.

#### Dickman, Jeffrey L.

1986 Approaches to Fieldwork in Homestead and Johnson Valley. In *Rock Art Papers*, Vol. 3, edited by Ken Hedges, pp. 143-156. Museum of Man Papers No. 20, San Diego, California.

#### Hedges, Ken

1999 Notes on Basic Methods of Recording Rock Art: Philosophies and Procedures. In *American Indian Rock Art*, Vol. 25, edited by Steven M. Freers, pp. 191-202. American Rock Art Research Association, San Miguel, California.

#### Hyder, William D., and Mark Oliver

1983 The 35 mm Camera and Rock Art Photography. In *Ancient Images on Stone: Rock Art in the Californias*, edited by Jo Anne Van Tilburg, pp. 96-111. The Rock Art Archive, The Institute of Archaeology, University of California, Los Angeles.

#### Kolber, Jane

1998 Some Recording Philosophies. *La Pintura* 25(1):5-6.

2004 A Practical Rock Art Recording Guide. Bisbee, Arizona.

#### Lee, Georgia

1992 The Role of Drawing in Rock Art Documentation. In *American Indian Rock Art*, Vol. 17, edited by Donald E. Weaver Jr., pp. 63-67. American Rock Art Research Association, El Toro, California.

#### Loendorf, Larry

2001 Rock Art Recording. In *Handbook of Rock Art Research*, edited by David S. Whitley, pp. 55-79. AltaMira Press, Walnut Creek, California

Loendorf, Lawrence, Linda A. Olson, Stuart Conner, and J. Claire Dean 1998 *A Manual for Rock Art Documentation*. Lake Mead National Recreation Area, National Park Service and Bureau of Reclamation.

#### Manning, Steven J., and Jesse E. Warner

1985 Minimum Standards for the Recording of Rock Art in U.R.A.R.A. In *Utah Rock Art*, Vol. 4, edited by Cindy Everitt and Rex Madsen, pp. 21-32. Utah Rock Art Research Association, Salt Lake City.

#### Mark, Robert, and Evelyn Billo

2002 Application of Digital Image Enhancement in Rock Art Recording. In *American Indian Rock Art*, Vol. 28, edited by Alanah Woody, pp. 121-128. American Rock Art Research Association, Tucson, Arizona.

#### Moore, Elanie

1992 Documenting the Art of Recording. In *Rock Art Papers*, Vol. 9, edited by Ken Hedges, pp. 27-37. Museum of Man Papers No. 28, San Diego, California.

1994 Enhancing the Spatial Aspects of Rock Art Recordings and Drawings. In *Rock Art Papers*, Vol. 11, edited by Ken Hedges, pp. 65-71. Museum of Man Papers No. 31, San Diego, California.

#### Nevada Rock Art Foundation

2002 Rock Art Training and Field Operation Manual.

#### Noxon, John, and Deborah Marcus

1985 Two Proposed Rock Art Supplement Forms and User's Guide for the Intermountain Antiquities Computer System. In *Utah Rock Art*, Vol. 4, edited by Cindy Everitt and Rex Madsen, pp. 33-54. Utah Rock Art Research Association, Salt Lake City.

#### Sanger, Kay Kennedy, and Clement W. Meighan

1990 Discovering Prehistoric Rock Art. A Site Recording Manual. Wormwood Press, Calabasas, California.

#### Stickney, Teddy

1997 Lower Pecos River Style: Rock Art Recording Manual. In *American Indian Rock Art*, Vol. 23, edited by Steven M. Freers, pp. 195-202. American Rock Art Research Association, San Miguel, California.

#### Stuart, David R.

1978 Recording Southwestern Rock Art Sites. Kiva 43(3-4):183-199.

#### Swartz, Jr., B.K.

1980 Minimum Standards for Recording Rock Art. La Pintura 12(2): 11-12.

1981 Standards for the Recording of Petroglyphs and Pictographs. *Current Anthropology* 22(1): 94-95.

#### Turner, Wilson G.

1983 The Importance of Systematic Rock Art Inventories. In *American Indian Rock Art*, Vol. 9, edited by Frank G. Bock, pp. 37-43. American Rock Art Research Association, El Toro, California.

#### Urban, Sharon F.

1993 Recording Rock Art Sites as Archaeological Sites. In *American Indian Rock Art*, Vol. 12, edited by William D. Hyder, pp. 133-135. American Rock Art Research Association, San Miguel, California.

# APPENDIX A ROCK ART RECORDING FORMS

State of California Rock Art Record Supplement

IMACS Rock Art Attachment (Intermountain Antiquities Computer System used in Idaho, Nevada, and Utah)

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION	Primary # Trinomial
ROCK ART RECORD	
Page of Resource Name or # (Assigned	by Recorder)
R1. Feature # (Panel #): of R2. Feature/Panel Location (From site datum.):	
Found on: Cliff face Boulder Bedrock Cave/shelte	
R4. Host Background:  Patinated Natural Painted R5. Detailed Description of Feature/Panel: (Check any that apply) (Describe feature/panel size, size of host rock, number and types of elements.)	☐ Petroglyphs ☐ Pictographs ☐ Geoglyph
R6. a. Feature/Panel Integrity: ☐ Good ☐ Fair ☐ Poor ☐ b. Natural Deterioration (Check any that apply.): ☐ Water erosio ☐ Lichen growth ☐ Wind Erosion ☐ Sun exposure ☐ R ☐ Mineral accretion ☐ NONE ☐ Other (Explain): ☐ c. Cultural Deterioration (Check any that apply.): ☐ Bullet holes ☐ Livestock ☐ Logging ☐ Visitor use ☐ NONE ☐ Other. Style(s) and Suspected Cultural Affiliation:	n ☐ Surface spalling ☐ Block fractures lock fall ☐ Plant defacement ☐ Animal nesting ☐ Graffiti ☐ Chalk ☐ Scratched ☐ Altered
<b>R8</b> . <b>Elements Superimposed?</b> □ No □ Yes (Describe)	
R9. Feature/Panel Visibility:  Visible  Semi-visible  R10. Associated/Nearby Cultural Materials:	Hidden
R11. Conservation Recommendations:	
R12. Form Prepared by:	Date:
Affiliation and Address:	
DPR 523G (1/95)	Note: Attach sketch of rock art panel/feature.

IMACS ROCK AR	T ATTACHMENT		Pageof			
1. Number of panels a	t this site		Site No(s)	-		
2. This form is for pa	nel number					
3. Panel is situated of () Bedrock (A) () Boulder (B) () Cave Interior (	() Cliff () Porta	Face (D) able-Small Stone shelter Interior		( ) Structure (G) ( ) Other (X)		
4. Worked surface is: ( ) Vertical 1 100 ( ) Sloping (B)		ontal 1 100 (C) head (D)		( ) Multiple (E)		
Additional information	on:					
5. Type of Rock: ( ) Basalt (A) ( ) Granite (B)  Formation name if kno	( ) Limestone (C ( ) Sandstone (D own and additional info	) ()Other	(X)	nknown (Z)		
6. Background: ( ) Natural (A) ( ) Painted (B)  Additional informatio	( ) Patin ( ) Plast		( ) Smoke B ( ) Other (X			
7. Category and Techn () Petroglyphs	ique: ( ) Abraded (A) ( ) Cuple (B)	( ) Incised (C) ( ) Scratched (		Solid Pecked (E) Stipple Peck (F)		
() Pictographs	( ) Monochrome (G) ( ) Polychrome (H)			Sprayed (K) Stipple (L)		
() Combinations	painted petroglyphs, e	etc. (M)				
Additional information	n:					
8. Petroglyph Repatina ( ) None: 0 to 5% (A) ( ) Light: 5 to 30% (B)	( ) Medium: 30 to ( ) Dark: 60 to 95	) 60% (C) 5% (D)		5 to 100% (E) cross panel (F)		
Additional information	1:					
9. Number of Figures: ( ) 1 to 10 (A) ( ) 11 to 20 (B) ( ) 21 to 30 (C) ( ) 31 to 40 (D)	()41 to 50 ( ()51 to 60 ( ()61 to 70 ( ()71 to 80 (	(F) (G)	()81 to 90 ()91 to 10 ()Greater			
10. Rock art figures su	perimposed:		Yes	No		
Describe:						

	Pageof
11. Incorporation of natural features in design or figur	res: Yes No
Describe:	
12. Surface preparation prior to rock art application:	Yes No
Describe:	
<ul> <li>13. Prehistoric figure modification:</li> <li>( ) Covering with pigment or paint (A)</li> <li>( ) Covering with plaster or mud (B)</li> <li>( ) Obliteration - part or total (C)</li> </ul>	( ) Reworking/Additions (D) ( ) None (N) ( ) Other (X)
Describe:	
	0
14. Panel orientation/aspect	°
15. Panel dimensions (meters):Lx H	Area
16. Height of highest rock art figure above present so	l line (meters):
17. Height of lowest rock art figure above present soi	l line (meters):
() % Exposure - wind/rain (B) () () % Lichen growth (C) () () % Mineral deposits (D) ()	% Surface Spall (F) % Vegetation abutment (G) % Water runoff (H) % None (N) % Other (X)
Additional information.	
()	cted (Use multiples of 10%): )% Obliteration (I) )% Paint (J) )% Removal - attempted (K) )% Removal - complete (L) )% Smoke blackening (M) )% Other (X)
Additional information:	
If warranted, provide a field sketch of the panel. Note a agents, superimposed figures, colors (using a Munsell of applicable comments.  Attachments:	manufacturing techniques, impacting color chart if possible), or any other

# APPENDIX B SITE REPORT FORMS

Arizona State Museum Archaeological Site Record

State of California Historic Resource Site Record

IMACS Prehistoric Site Record (Intermountain Antiquities Computer System used in Idaho, Nevada, and Utah)

Field No: Recorders:/	/NatIReg Opinion:	REC
Recording Organization:	Date Recorded://	RECORDER ADMIN
Proj. Name:		E
Site Name:	CTY CO ST TRIB USFS USFW	\$ [
	BLM DOD ACE BOR RTC	AS A
Owner/Agency name:		ح
Survey Colls: Y N Repository Inst:		
Report Ref:		
Mapname USGS:	Series: State: County: El:ft	
Site size: (in Ft_ or M_) Length		
	0.100.000	5
cntr UTM: Z E N	BL TWN RNG SC SUBDIVISION	AR LOCATION
peri UTM Z E N N		₽ A
peri UTM Z E N		
peri UTM Z E N		2
How were UTMs derived: USGS Map	GPS	A
City Description (Description		ARIZONA STATE MUSEUM ARCHAEOLOGICAL
Site Description/Remarks:		
		Ě
		×
		≥
		Ŝ
		À
		E
		5
		Z G
		SICAL SITE C
		PRET
		TATI
		LIO!
		CAHD
		2
		1
	Additional Documentation type document location	AG
Agency Site No:	in	ENC
Agency Proj. No:	in	Ϋ́A
Natl Reg Rec:	in	AGENCY ADMIN
ASM Site No: AZ::(ASM)	ASM Proj No.: ASM Permit No:	
ASM USE ONLY Class: Within		ASI
QP :: Biblio Ref.	AZ : : (ASM)	A K
QP	otted/by "E DE//by	ASM ADMIN

Depositional Context: (choose as many as apple (1) Open, no depth (2) Open, depth (3) Open, depth unknown (4) Open, exposed only in profit Topo. setting:  Vegetation:  Geology/soils:  Site Condition:		(6) Rocksh	elter, no depth elter, depth elter, depth unkr		(8) Cave, no depth (9) Cave, depth (10) Cave, depth unk.	AZASM) ENVIRONMENT
	ties as cor ot seen at CCR hell ist cerami	unts, estimathe the site.)	ated ranges, "P" glassmetalhist wood  pes as counts, es	Features wi for types kno ar pl ht	nimal remains/artifacts ant remains/artifacts Iman remains	AHIZONA STATE MUSEUM AHCHAEOLOGICAL STE
Feature Data: (Complete one	feature	record for	each type of fea	ature record	ed for this site.)	}
Feature No. 1 Name ¹	Count	Use²	Culture	Age²	Period/Phase ³	
Feature Remarks:						CARD FEA:
Feature No. 2 Name¹ Feature Remarks:	Count	Use²	Culture	Age²	Period/Phase ³	FEATURES
reacute memarks.						

	Feature Names	Key	word List		use, Culture, & Ag	ge r	Reyword Lists	
					Us	e		
				1	Unknown Use		Communication	
1	Ash Stain	58	Log Cabin	2	Accidental Loss		Monument	
2	Artifact Scatter	59	Masonry Structure	3	Passive Accumulation	13 /	Art	
3	Atalaya	60	Midden	4	Observation		Recreation	
4	Ball Court	61	Milled Lumber Structure	5	Resource Procurement		Commerce	
5	Barn	62	Mine	6	Agricultural		Detense	
6	Battle Site	63	Mine Waste	7	Manufacturing/Production		Religious/Ceremonial	
7	Bedrock Grinding Stone	64	Monument	8	Conveyance/Transportation		Government/Public Bldg.	
8	Bedrock Steps	65	Mound, Structural	9	Storage		Habitation	
9	Bin/Cist	66	Mound, Trash		Disposal		Subsistence/Food Prod.	
10	Brick Kiln	67	One Room Structure	10	Disposal		Other (note in Feature remark	e)
11	Bridge	68	Orchard					31
12	Burial/Grave	69	Ore Processing Facility		Cultural A			
13	Burned Rock Midden	70	Ore Transport Feature		Unknown		<u>Pai</u>	
14	Cache	71	Outbuilding	2			Havasupai	
15	Cairn	72	Outhouse	3			Hualapai	
16	Canal	73	Oven	4			Yavapai	
17	Car Body	74	Painted Petroglyph	5		32	Seri	ARIZONA STATE
18	Cavate Room	75	Pecked Bedrock	6	Anasazi	33	Southern Paiute	22
19	Cemetery		Depression	7	Cohonina	34		Ö
20	Charcoal Stain	76	Petroglyph	8	Hakataya	35	Yaqui	Z
21	Church/Religious	77	Pictograph	ç	Hohokam	36	Yuman	Δ.
	Structure	78	Pithouse	1	0 Mogolion	37	Chemehuevi	57
22	Clearing in Desert	79	Plaza	1	1 Patayan	38	Co∞pah	$\triangleright$
	Pavement	80	Posthole	1	2 Prescott	39	Halichidhoma	ΕË
23	Clay Quarry	81	Pottery Kiln	13	3 Sinagua	40	Halyikwamai	2
24	Coke Oven	82	Public Building	1.	4 Casas Grandes	41	Kahwan	2
25	Compound Walls	83	Quarry	1	5 Salado	42	Kavelchadom	33
26	Communication System,	84	Railroad Track/Bed	1	6 Trincheras	43	Mari∞pa	<u>:::</u>
	Linear	85	Ramada/Shelter	1	7 Extant Native Culture	44	Mohave	₹
27	Constructed Linear	86	Reservoir	1	8 Apache	45	Quechan	$\triangleright$
	Feature, Undefined	87	Resource Procurement	1	9 San Carlos Apache	46	Zuni	$\Xi$
28	Corral	0,	Area		0 Tonto Apache	47	Nonnative Culture	MUSEUM ARCHAEOLOGICAL SITE
29	Cremation	88	Road/Trail	2		48	African-American	$\overline{\Rightarrow}$
30	Depression, Undefined	89	Roasting Pit	2	2 Hopi	49	Asian-American	E
31	District	90	Rock Alignment,	2	3 Navajo	50	Euro-American	$\succeq$
32	Dugout	-	Undefined	2	4 O'odham	51	Mexican-American	0
33	Dump	91	Rock Feature, Undefined	2	5 Hia Ced O'odham	52	Spanish	Э
34	Excavated Linear	92	Rock Pile		6 Tohono O'odham	53	Other (please specify in	$\mathcal{C}_{\mathcal{P}}$
34	Feature, Undefined	93	Rock Ring		7 Akimel O'odham		Feature Remarks)	-
35	Fence	94	Roomblock	_				<u> </u>
36	Field	95	Sawmill		Ag	e*		=
37	Field House	96	Scatter, Sherd	•	<u>Unknown</u>			111
38	Fired Brick Structure	97	Scatter, Trash	2	Post-contact		AD1500-Present	CARD
39	Garden	98	Shed	3	Recent		AD1950-Present	$\mathfrak{D}$
40	Graffitti	99	Shrine	4	<u>Historic</u>		AD1500-1950	0
41	Grain Mill	100	Soil Control Structure	Ę	Post AD1700 Historic		AD1700-1950	
		101	Spring Control Device	(	Late Historic		AD1900-1950	
42					7 Middle Historic		AD1800-1900	
43	Hearth	102	Stage Stop	8	B Early Historic		AD1700-1800	
44	Historic Settlement	103	Stockade	9	Prehistoric/HistoricTransition		AD1500-1700	
45	Hogan	104	Sweat Lodge		10 <u>Prehistoric</u>		12000BC-AD1500	
46	House Extant	105	Tank		11 Ceramic		AD200-1500	
47	House Foundation	106	Tent Base		12 Late Ceramic		AD1300-1500	
	Human Remains	107	Tower		13 Middle Ceramic		AD1000-1300	
	Hunting Feature	108	Trading Post/Mercantile		14 Early Ceramic		AD200-1000	
50	Intaglio	109	Trailer		15 Preceramic		12000BC-AD500	
51	Kiln	110	Trincheras		16 Preceramic/Ceramic Transition		500BC-AD500	
52		111	Wall		17 Pre-500 BC Preceramic		12000BC-500BC	
53	Lime Kiln	112			18 Archaic		8000BC-AD200	
54	Linear Border	113			19 Late Archaic		1500BC-AD200	
55	Lithic Quarry	114			20 Middle Archaic		4800BC-1500BC	
56	Lithic Scatter	115	Windmill		20 Middle Archaic 21 Early Archaic		8000BC-4800BC	
57	Livestock Enclosure	116	Other (note in Feature Remarks)		21 Early Archaic 22 Paleoindian		12000BC-8000BC	
					EZ I dieumulan		.200000	

^{*} Underlined terms are more general versions of the specific terms that follow.

State of California — The Re DEPARTMENT OF PARKS A		Primary #HRI #				
PRIMARY RECOR		Trinomial				
	Other Listings	AND THE PARTY OF THE PROPERTY.				
	Review Code	Reviewer	Date			
age of	*Resource Name or #					
1. Other Identifier:						
	olication   Unrestricted	*a. County				
and (P2b and P2c or P2d. Atta	ach a Location Map as necessar	y.)	1/ at 1/ at Can			
*b. USGS 7.5' Quad	D	ate; City	¼ of ¼ of Sec; B.I Zip			
d. UTM: (Give more than or	ne for large and/or linear resource	es) Zone;	mE/ mN			
e. Other Locational Data:	(e.g., parcel #, directions to reso	urce, elevation, etc., as appropria	ate)			
4. Resources Present:	□Building □Structure □0					
4. Resources Present:	□Building □Structure □0		Element of District □Other (Isolates, etc.)  P5b. Description of Photo: (View, date, accession #)  *P6. Date Constructed/Age and Sources: □Historic □Prehistoric □Both			
4. Resources Present:	□Building □Structure □0		P5b. Description of Photo: (View, date, accession #) *P6. Date Constructed/Age and Sources: □Historic			
4. Resources Present:	□Building □Structure □0		P5b. Description of Photo: (View, date, accession #)  *P6. Date Constructed/Age and Sources: □Historic □Prehistoric □Both			
4. Resources Present:	□Building □Structure □0		P5b. Description of Photo: (View, date, accession #)  *P6. Date Constructed/Age and Sources: □Historic □Both  *P7. Owner and Address:  *P8. Recorded by: (Name,			
3b. Resource Attributes: (L.4. Resources Present: P5a. Photo or Drawing (Phot	□Building □Structure □C to required for buildings, structure	es, and objects.)	P5b. Description of Photo: (View, date, accession #)  *P6. Date Constructed/Age and Sources: □Historic □Both  *P7. Owner and Address:  *P8. Recorded by: (Name, affiliation, and address)  *P9. Date Recorded:			

		rimary #
702		
Page of	*Resource Name or # (Assigned by red	corder)
Method of Mea Method of Dete	a. Length () × b. Width surement: □ Paced □ Taped □ Visual estimate ermination (Check any that apply.): □ Artifacts □ Featu □ Animal burrow □ Excavation □ Property boundar	☐ Other:
Reliability of D	etermination: ☐ High ☐ Medium ☐ Low Explain	:
Limitations (Ch	eck any that apply):   Restricted access  Paved/buil  or Other (Explain):	t over   Site limits incompletely defined
	_ □ None □ Unknown Method of Determination ins: □ Present □ Absent □ Possible □ Unknown	n:
*A4. Features (Num	nber, briefly describe, indicate size, list associated cultural con	stituents, and show location of each feature on sketch map.):
*A5. Cultural Cons	tituents (Describe and quantify artifacts, ecofacts, cultural r	esidues, etc., not associated with features.):
*A7. Site Condition	ens Collected? □ No □ Yes (If yes, attach Artifact Ren: □ Good □ Fair □ Poor (Describe disturbances.):  r (Type, distance, and direction.):	ecord or catalog and identify where specimens are curated.)
A10. Environmenta exposure, etc.):	al Setting (Describe culturally relevant variables such as veg	getation, fauna, soils, geology, landform, slope, aspect,
A11. Historical Info	ormation:	
*A12. Age: ☐ Preh ☐ Post 1945 ☐	nistoric Protohistoric 1542-1769 1769-1848 Undetermined Describe position in regional prehistori	☐ 1848-1880 ☐ 1880-1914 ☐ 1914-1945 ic chronology or factual historic dates if known:
A13. Interpretation	s (Discuss data potential, function[s], ethnic affiliation, and ot	her interpretations):
A14. Remarks:		
A15. References (I	Documents, informants, maps, and other referrences):	
A16. Photographs	(List subjects, direction of view, and accession numbers or at	tach a Photograph Record.):
*A17. Form Prepar	egatives Kept at:ed by:	
Amiliation and A	Address:	

# IMACS SITE FORM Part A - Administrative Data

INTERN	ITAA AIATAUON	QUITIES COM	PUTER SYSTEM					
Form as	pproved for use by	/						
	Jtah, Idaho, Neva							
	of State History -			*1.	State No.			
	Intermountain Re			*2.	Agency No.			
NPS - L		3.0		3.	Temp. No.			
4.					Coun	tv		
5.						,		
*6.	Penert No.							
7.	Site Name / Pro							
7. 8.	Class	Preh		Historic	П	Paleontologic		Ethnographic
		_		1 11313110		, alcomologic	_	
9.	Site Type Elevation		4					
•10.					m بي	<b>.</b>		, m N
*11.	UTM Grid Zon							
•12.		of	of	01	Section	'		٦
*13.	Meridian							
*14.	Map Reference							
15.	Aerial Photo							
16.	Location and Ac	cess						
•17.	Land Owner _							
•18.		trative I Inite						
*19.								
20.								
20.	Site Description							
*21.	Site Condition	□ Excelle	nt (A)	Good (B)		☐ Fair (C)		Poor (D)
*22.	Impact Agent(s)							
~~.	past / ige(-)							
*23.	National Registe	r Status D S	Significant (C)	☐ Non-S	ignificant (D)	☐ Une	valuated (Z)	
23.	Justify						, ,	
	Justily							
	<u> </u>							
24.	Photos							
25.	Recorded by _						Summer Date	
<b>*26</b> .	Survey Organiza					28.	Survey Date	
27.	Assisting Crew N	Members						
		C Boot B	□Торо Мар	_	Photos		□ Continuatio	n Sheets
List of	f Attachments:	☐ Part B	☐ Site Sketcl		Artifact/Featu	ire Sketch	Other:	
		□ Part C	P Site Sketci		AilliacVFeall	no okelai	_ Culci	
		□ Part E						DI 14 0100 1

*Encoded data items

BLM 8100-1 FS R-4 2300-2 3/90

### Part A - Environmental Data

•1		(Degrees) ent Water_			t (Degrees)				
	ype of Water Soun ame of Water Soun	ce	☐ Spring/Seep (A)		☐ Stream/River	(B)	☐ Lake (	C)	Other (D)
_	eographic Unit		uide for additional informatio						
10	pographic Location	1 - 500 G	noe for additional informatio	<b>X</b> 1					
PRI	IMARY LANDFORM				SECONDARY LANDE	_		_	
	Mountain spine (A)		Altuvial fan (A)		Dune (I)	_	Slope (Q)		Riser (Y)
_	Hill (B)		Alcove/Rock Shelter (B)	_	Floodplain (J)	_	Terrace/Bench (R)	_	Multiple S. Landform
	Tableland/Mesa (C)		Arroyo (C)			0	Talus Slope (S)		Bar (2)
_	Ridge (D)		Basin (D)				Island (T) Outcrop (U)		•
_	Valley (E)		Cave (E)	_				_	-,
	Plain (F)		_	_			Valley (W)	_	
_	Canyon (G)		Delta (G) Detached Monolith (H)	_			Cutbank (X)	_	Graben (7)
	Island (H) escribe		J Detached Mondian (A)	_					
_									
	-site Depositional Fan (A)		Outcrop (Q)		☐ Morraine (J)		☐ De	sert Pav	vement (P)
	Talus (B)				Flood Plain (K)		☐ Str	am Be	d (R)
	Dune (C)		Extant Lake (G)		☐ Marsh (L)		☐ Aed	olian (S)	
	Stream Terrace (D)		Alluvial Plain (H)		□ Landslide/Slump	(M)	□ No	ne (T)	
	Playa (E)		Colluvium (I)		Delta (N)		☐ Re:	sidual (L	J)
Veg	getation Life Zone				_		_		
a.			(A) Hudsonian (B)	$\neg$	Canadian (C) Tra	neition	al (D) I linner So		
		Arctic-Alpine		ш					-
•b.	Community	Pri	mary On-Site	-	Secondary On-Si	te _	Surro	unding	Site
*b.	Community Aspen (A)	Pri	mary On-Site	-	Secondary On-Si Grassland/Steppe (	te _ M)	Surro	unding VSwam	p (S)
*b.	Community Aspen (A) Spruce-Fir (B)	Pri	mary On-Site Other/Mixed Conifer (G) Pinyon-Juniper Woodland (H	-	Secondary On-Si Grassland/Steppe ( Desert Lake Shore (	te _ M) N)	Surror Marsi Lake/	unding VSwam Reserve	g Site p (S) pir (T)
*b.	Community Aspen (A) Spruce-Fir (B) Douglas Fir (C)	Pri C F	mary On-Site Other/Mixed Conifer (G) Pinyon-Juniper Woodland (H Vet Meadow (I)	-	Secondary On-Si Grassiand/Steppe ( Desert Lake Shore ( Shadscale Commun	te _ M) N)	Surro Marsi Lake/ Agrice	unding VSwam Reserve ultural (I	p (S) pir (T) U)
*b.	Community Aspen (A) Spruce-Fir (B) Douglas Fir (C) Alpine Tundra (D)	Pri	mary On-Site Other/Mixed Conifer (G) Pinyon-Juniper Woodland (H Vet Meadow (I) Ony Meadow (J)	-	Secondary On-Si Grassland/Steppe (I Desert Lake Shore ( Shadscale Commun Tall Sagebrush (P)	te _ M) N)	Surro Marsi Lake/ Agrici Black	unding VSwam Reserve ultural (U	g Site p (S) pir (T) U)
*b.	Community Aspen (A) Spruce-Fir (B) Douglas Fir (C)	Pri	mary On-Site Other/Mixed Conifer (G) Pinyon-Juniper Woodland (H Vet Meadow (I)	-	Secondary On-Si Grassiand/Steppe ( Desert Lake Shore ( Shadscale Commun	te _ M) N)	Surro Marsi Lake/ Agrici Black	unding VSwam Reserve ultural (I	g Site p (S) pir (T) U)

### Part B - Prehistoric Sites

			Site No	o.(s)
1.	Site Type			
2.	Culture	ILIATION DATING METHOD	CULTURAL AFFI	LIATION DATING METHOD
3.	DescribeSite Dimensions	_ m X m	*Area	sq. n
4.	Surface Collection/Method Sampling Method	□ None (A) □ Grab Sample (B)	☐ Designed S	,
5.	Estimated Depth of Cultural Fill How Estimated	☐ Surface (A) ☐ 0 - 20 cm (B)	□ 20 - 100 cm (C) □ 100 cm + (D)	☐ Fill noted but unknown (E) ☐ Depth Suspected, but not tested (F)
6.	(If tested, show location on site r  Excavation Status  Testing Method	☐ Excavated (A)	☐ Tested (B)	☐ Unexcavated (C)
7.	Summary of Artifacts and Debris		categories)	
	☐ Lithic Scatter (LS) ☐ Ceramic Scatter (CS) ☐ Basketry/Textiles (BT) Describe	☐ Isolated Artifact (IA)☐ Organic Remains (VR)☐ Shell (SL)	☐ Burned Stone (BS)☐ Ground Stone (GS)	☐ Bone Scatter (WB) ☐ Charcoal Scatter (CA)
*8.	Lithic Tools #	TYPE		TYPE
•9. [	Lithic Debitage - Estimated Quant	tity None (A)	□ 10 - 25 (C) □ 25 - 100 (D)	□ 100 - 500 (E) □ 500 + (F)
	Material Type	□ 1-9(B)		

## Part B - Prehistoric Sites

			Site No.(s)				
Ceramic Artifacts	#	TYPE		#		TYPE	
-							
-							
Describe							
Maximum Density - # / sq r	n (ceramics)						
Non-Architectural Features							
☐ Hearth/Firepit (HE)☐ Midden (MD)	☐ Rubble N	☐ Rubble Mound (RM) ☐ Stone Circle (SC)		☐ Earthen Mound (EM) ☐ Burial (BU)		<ul><li>Petroglyph (PE)</li></ul>	
Depression (DE) Describe	☐ Rock Alig	gnment (RA)	☐ Talus Pit (1	TP) 	☐ Picto	graph (PI)	
Describe							
Comments / Continuations							
						BLM 8	